

IN THE CLAIMS

Please amend Claims 1-20 as follows:

1. (CURRENTLY AMENDED) A network comprising:

a plurality of network nodes, and

a star node that is configured to be coupled to the plurality of network nodes to facilitate communication among the plurality of network nodes,

wherein:

the star node includes a plurality of star interfaces, each star interface of the plurality of star interfaces being assigned to at least one network node of the plurality of network nodes, and

each star interface is configured such that, in dependence on detection of a pilot signal from an assigned network node, the star interface that is assigned to the assigned network node autonomously controls the conveyance of a message from the assigned network node to the other star interfaces and therefrom to the other network nodes, and

wherein each star interface includes:

a first amplifier having a first input and a first output,

a second amplifier having a second input and a second output,

a pilot detector having a pilot input and a pilot output, wherein

the first input, the pilot input, and the second output are commonly and directly coupled to the assigned at least one network node,

the first output and the second input are commonly and directly coupled to the first output and second input of each other star interface, and

the pilot output is operably coupled to the pilot input of each other star interface.

2. (PREVIOUSLY PRESENTED) A network as claimed in claim 1, wherein

each network node is assigned a periodically recurrent time section for the transmission of its messages, and

each network node includes a pilot signal generator that is configured to generate a pilot signal that identifies the time section to the assigned star interface.

3. (PREVIOUSLY PRESENTED) A network as claimed in claim 1, wherein

each star interface includes a first and second switch element and a pilot signal detector,
the first switch element is configured to allow a message to pass from the assigned
network node to the other star interfaces and

the second switch element is configured to allow a message to pass from the other star
interfaces to the assigned network node and

the pilot signal detector is configured to selectively control the first and second switch
elements based upon detection of a pilot signal from the assigned network node.

4. (PREVIOUSLY PRESENTED) A network as claimed in claim 3, wherein
the first and second switch elements are each a switchable amplifier.

5. (PREVIOUSLY PRESENTED) A network as claimed in claim 1, wherein
each star interface is configured to generate a release signal upon receipt of a pilot signal
from the assigned network node, and
the star node is configured to propagate the release signal to the plurality of star
interfaces.

6. (PREVIOUSLY PRESENTED) A network as claimed in claim 5, wherein
the star node is configured to propagate the release signal via a wired OR combination of
the release signal from each star interface.

7. (PREVIOUSLY PRESENTED) A network as claimed in claim 2, wherein
at least one network node is assigned to more than one star interface, of which only one
star interface is enabled to communicate messages in dependence on a state of the assigned
network node.

8. (PREVIOUSLY PRESENTED) A network as claimed in claim 7, wherein
the at least one network node includes:
at least two pilot signal generators, and
at least two multiplexers for combining the pilot signal generated by the assigned
pilot signal generator with a message, and

a control unit that is configured to select a line connection and an assigned star interface for transmitting the message combined with the pilot signal.

9. (PREVIOUSLY PRESENTED) A network as claimed in claim 8, wherein
the at least one network node includes one or more pilot signal detectors, and
the control unit is configured to test communications over the network based on detection of received pilot signals at each of the more than one star interfaces.

10. (CANCELLED) A network node in a network that includes a plurality of other network nodes, comprising:
a pilot generator that is configured to generate a pilot signal that serves to identify a time frame within which a message is to be transmitted from the network node,
a multiplexer, operably coupled to the pilot generator, that is configured to multiplex the pilot signal and the message to produce an output signal, and
a transmitter, operably coupled to the multiplexer, that is configured to transmit the output signal,
wherein
the network node is configured to be coupled to the network via a star node that communicates the output signal to each of the other network nodes based on a detection of the pilot signal.

11. (CURRENTLY AMENDED) A star node in a network for coupling a plurality of network nodes, comprising
a plurality of star interfaces, each star interface of the plurality of star interfaces being assigned to at least one network node of the plurality of network nodes,
wherein
each star interface is configured to:
detect a pilot signal generated by a network node that is assigned to the star interface, and
autonomously control each of the other star interfaces to enable transmission of a message associated with the pilot signal to each of the other network nodes in the network, and
wherein each star interface includes:

a first amplifier having a first input and a first output,
a second amplifier having a second input and a second output,
a pilot detector having a pilot input and a pilot output, wherein
the first input, the pilot input, and the second output are commonly and
directly coupled to the assigned at least one network node,
the first output and the second input are commonly and directly coupled to
the first output and second input of each other star interface, and
the pilot output is operably coupled to the pilot input of each other star
interface.

12. (PREVIOUSLY PRESENTED) The star node of claim 11, wherein

each star interface is selectively operable in one of a receive mode and a transmit mode,
and

each star interface includes

a pilot detector that is configured to detect the pilot signal and selectively set its
interface to receive mode, and each of the other star interfaces to transmit mode,

wherein

in the receive mode, the star interface is configured to receive messages from its assigned
one or more network nodes, and

in the transmit mode, the star interface is configured to transmit messages to its assigned
one or more network nodes.

13. (CANCELLED) The star node of claim 11, wherein

each star interface includes:

a first amplifier having a first input and a first output,

a second amplifier having a second input and a second output,

a pilot detector having a pilot input and a pilot output,

wherein

the first input, the pilot input, and the second output are commonly and directly coupled
to the assigned at least one network node,

the first output and the second input are commonly and directly coupled to the first output and second input of each other star interface, and
the pilot output is operably coupled to the pilot input of each other star interface.

14. (CANCELLED) The network node of claim 10, wherein

the multiplexer includes one of:

- a time-division multiplexer,
- a frequency-division multiplexer, and
- a phase-division multiplexer.

15. (PREVIOUSLY PRESENTED) The network of claim 2, wherein

the pilot signal includes one of:

- a signal that is time-division multiplexed with the message,
- a signal that is frequency-division multiplexed with the message, and
- a signal that is phase-division multiplexed with the message.

16. (PREVIOUSLY PRESENTED) The network of claim 1, wherein

each star interface is selectively operable in one of a receive mode and a transmit mode,
and

each star interface includes

a pilot detector that is configured to detect the pilot signal from the assigned network node and selectively set its interface to receive mode, and each of the other star interfaces to transmit mode,

wherein

in the receive mode, the star interface is configured to receive messages from its assigned at least one network node, and

in the transmit mode, the star interface is configured to transmit messages to its assigned at least one network node.

17. (PREVIOUSLY PRESENTED) The network of claim 16, wherein

the pilot signal includes one of:

- a signal that is time-division multiplexed with the message,

a signal that is frequency-division multiplexed with the message, and
a signal that is phase-division multiplexed with the message.

18. (CANCELLED) The network of claim 1, wherein

each star interface includes:

a first amplifier having a first input and a first output,
a second amplifier having a second input and a second output,
a pilot detector having a pilot input and a pilot output,

wherein

the first input, the pilot input, and the second output are commonly and directly coupled to the assigned at least one network node,

the first output and the second input are commonly and directly coupled to the first output and second input of each other star interface, and

the pilot output is operably coupled to the pilot input of each other star interface.

19. (CURRENTLY AMENDED) The network of claim ~~19~~1, wherein

the pilot output of all of the star interfaces are commonly and directly coupled to the pilot input of all of the star interfaces.

20. (CURRENTLY AMENDED) The network of claim ~~18~~1, wherein

at least one of the first and second amplifiers is a switchable amplifier having an enable input, and

the pilot output of each star interface is operably coupled to the enable input of the at least one switchable amplifier of each other star interface.